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10/726,641	12/04/2003	Ming-Dou Ker	6720.0117-00	6205
EXAMINER				
BENENSON, BORIS				
ART UNIT		PAPER NUMBER		
2836				

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PHILADELPHIA, PA 19103

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/726,641

Applicant(s)

KER ET AL.

Examiner

Boris Benenson

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Detailed Actions***

***Drawings***

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because Figures 1A and 1B as well as Figures 2A and 2B, indicated in the Specification as a front view and a side view of an interface device don't provide proper spatial perspective. Similarly Figures 5A and 5B should be corrected. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5 and 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Camsell et al. (5,208,968). Camsell et al. disclose a Programmable Insertion Tool For A Pin Header. Camsell et al. disclose that "With the use of integrated circuits and other similar sensitive electronic components with protective networks, steps must be taken to prevent exposure of these

sensitive elements to extraneous static charges during installation and removal of interface connections" (Col.1, Lines 17-21) and further "To solve this problem, connectors have been developed whereby selected contacts, typically ground and power contacts, mate prior to the mating of the signal contacts. This is accomplished by making the ground and power pins longer than the other pins so that they mate first"(Col.1, Lines 28-33). It is inherent to have mating half of the connector, read on receptacle, to which pins, read on contact members, should be inserted.

Referring to Claims 4 and 5, at least two pins, read on contact members (Figs.2, Fig.5, Pos. 16' and 16") are longer than rest of contact members (16'"), so when plugged into the receptacle connected to an external device they will be in contact earlier, then the rest of contact members.

Referring to Claims 9 and 10, Camsell et al. disclose "making the ground and power pins longer than the other pins", which indicate Vdd (power pin) and Vss (ground pin).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-10, and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camsell et al. (5,208,968) in view of Bouchan et al. (5,564,933) and Park et al. (5,662,483). Camsell et al. disclose a Programmable Insertion Tool For A Pin Header. Camsell et al. disclose that "With the use of integrated circuits and other similar sensitive electronic components with protective networks, steps must be taken to prevent exposure of these sensitive elements to extraneous static charges during installation and removal of interface connections" (Col.1, Lines 17-21) and further "To solve this problem, connectors have been developed whereby selected contacts, typically ground and power contacts, mate prior to the mating of the signal contacts. This is accomplished by making the ground and power pins longer than the other pins so that they mate first" (Col.1, Lines 28-33). Camsell et al. didn't explicitly disclose receptacle, corresponding to the pin. Bouchan et al. teach a System For Removing Electrical Charges Associated With Memory Card Connectors, wherein header connector (Fig.2, Pos.18) having a plurality of signal terminals read on connection members (24)

and a pair of ground terminals (26). Bouchan et al. teach "making pin ground terminals 26 of the header connector longer than pin signal terminals 24, to create a first mate/last break contact system" (Col.4, Lines 23-26). Bouchan et al. teach a receptacle (Figs 2-3, pos.42) whose contact members corresponded with pins of connector (18) and supposed to be mated with contact members (pins) of connector (18). Park et al. teach a Surge Voltage Preventing D-Sub Connector, wherein a receptacle comprises electrically conducting fingers (Fig.6, Pos.76) of the female ground pinholes (56) extend closer to the exterior mating surface (30) than electrically conducting fingers (Fig.7, Pos.77) in the signal pinholes (57). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Camsell et al. with teachings of Bouchan et al. and use a combination of a receptacle and a pin in an interface device, because it will enable a user to plug/unplug peripheral devices. It also would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Camsell et al. in view of Bouchan et al. with teachings of Park et al. and locate conductive fingers of receptacle on different distance from mating surface, because it will provide proper sequence of power/signal connections.

4. Claims 11-30 and 34-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camsell et al. (5,208,968) in view of Faraci (4,985,870) and Ziemkowski (6,804,119). Camsell et al. disclose a Programmable Insertion Tool For A Pin Header. Camsell et al. disclose that "With the use of integrated circuits and other similar sensitive electronic components with protective networks, steps must be taken to prevent exposure of these sensitive elements to extraneous static charges during installation and removal of interface connections" (Col.1, Lines 17-21) and further "To solve this problem, connectors have been developed whereby selected contacts, typically ground and power contacts, mate prior to the mating of the signal contacts. This is accomplished by making the ground and power pins longer than the other pins so that they mate first" (Col.1, Lines 28-33). Camsell et al. didn't disclose a plurality of first contact lines of a first length, a plurality of first contact lines of a second length, a plurality of first contact lines of a third length, where the second length and the third length are greater than the first length. Faraci teaches an Apparatus For Connecting Electronic Modules Containing Integrated Circuits and Backup Batteries; wherein contact lines (32 and 34) having greater length than lines/traces (24). Faraci teaches that

"The metallic traces 24 are conventionally referred to as card edge pins and are dimensioned to mate with a female card edge connector 28 which contains a like plurality of spring contacts 30" (Col.3, Lines 50-54). The line (32) is a ground line, read on (Vss). The line (34) is a positive voltage line (Vcc). Faraci doesn't teach a contact line with a third length. Ziemkowski teach a Method And Edge Connector Providing Electrostatic Discharge Arrest Features And Digital Camera Employing Same, wherein a contact lines include a plurality of contact lines (Fig.1, Pos.14) for signal lines, having a first length, a contact line (13) for connecting to positive voltage, having a second length, and a contact line (12) for a ground connection, having a third length. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Camsell et al. with teachings of Faraci and Ziemkowski to create an interface device that discharges extraneous static charges during installation and removal of interface connection with traces of the first, the second and the third length, because it will provide sequential connection so electrostatic charges will be removed before signal lines are connected.

Referring to Claims 28-30 and 44-47, Faraci teaches an apparatus for connecting and disconnecting a data storage device



to/from a system. The apparatus (such as a personal computer) upon connecting a new device provides a detection of newly installed device and initial testing. The apparatus (PC) comprises a motherboard with a plurality of connectors. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified connector for connecting an external device according to teachings of Faraci and Ziemkowski to create an interface device that discharges extraneous static charges during installation and removal of the external device, because it will allow safely connect/disconnect removable device such as an external disk or a digital camera.

*Contact information*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris Benenson whose telephone number is (571) 272-2048. The examiner can normally be reached on M-F (8:20-6:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571) 272-2800 ext 36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval

(PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Boris Benenson  
Examiner  
Art Unit 2836

B.B.



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